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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,753	04/14/2004	Li-Fa Tsai	OP-093000124	5069

7590 07/19/2005  
Yi-Wen Tseng  
4331 Battle Lane  
Fairfax, VA 22033

EXAMINER

BERMAN, JACK I

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/823,753

Applicant(s)

TSAl, LI-FA

Examiner

Jack I. Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogo et al. in view of Suter et al. Yogo et al. discloses an infrared radiator comprising: a lamp shade (reflective shade 8) and a projection head comprising a far infrared radiation generator that comprises a frame (tubular ceramic bobbin 2) comprising a groove formed along an exterior surface thereof (illustrated in Figure 2), a high-resistant wiring (heating wire 4) embedded in the groove to wind about the frame, the high-resistant wiring being operative to generate infrared radiation, a covering layer (ceramic 6) wrapping the high-resistant wiring therein, the covering layer being operative to block near infrared light contained in the infrared radiation. Yogo et al. does not describe in detail the shape of the groove along the exterior of the frame or the required lamp base, connectors, and fastening members. Suter et al. discloses a similar infrared radiator and teaches to form the frame (tubular core 6) as a continuous groove (7) extending between a bottom edge and a top edge along a spiral path with a pair of openings extending through the frame at two ends of the groove (as is illustrated in Figure 1). Suter et al. also teaches to provide the frame with a recessed portion at the bottom edge to receive a lamp base comprising a conductive terminal (15) and a connector fabricated from ceramic material (extension portion 6') on the conductive terminal, a fastening member (elongated metallic stem 13) to fasten the lamp projection head with the base. At lines 29-30 on page 2 Suter et al. teaches that the conductive terminal (15) on the connector (6) is placed in electric communication with a lamp socket so that

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the infrared generator (compound tube 10) extends out of the projection head to be plugged into the socket. It would have been obvious to a person having ordinary skill in the art to use the details of the Suter et al. infrared generator as the omitted details of the Yogo et al. far infrared generator since the Yogo et al. apparatus requires details at least equivalent to these, if not identical, in order to function. Yogo et al. also illustrates, in Figure 1, that the lamp shade (8) is disposed on the connector of the far infrared radiator.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yogo et al. and Suter et al. as applied to claims 1-4 and 7-11 above, and further in view of Hasegawa. Neither Yogo et al. nor Suter et al. disclose a particular material for use as the required high-resistant wiring. Hasegawa, on the other hand, teaches at lines 25-27 in column 1 that it is known in the art to use a nichrome (nickel-chromium material) wire enclosed by a ceramic tube as a high-resistant wiring (heater) in a far infrared generator. It would therefore have been obvious to a person having ordinary skill in the art to fabricate the high-resistant wiring in the Yogo et al./Suter et al. far infrared generator discussed above from nickel-chromium material in the known manner disclosed by Hasegawa.

Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogo et al. and Suter et al. as applied to claims 1-4 and 7-11 above, and further in view of Kim. Yogo et al. does not disclose the material of the covering layer (6) used to wrap the high-resistant wiring and block the near infrared light contained in the infrared radiation generated by the high-resistant wiring. Kim, on the other hand, teaches at paragraph [0004] that it is known in the art to fabricate such a layer from a mixture of ceramic powder (powdered bio-ceramics), water (ammonia water, which inherently contains water), and adhesives (which would inherently be


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high-temperature adhesives because any adhesives that could not withstand the temperature generated by the high-resistant wiring would not hold the coating onto the generator surfaces as required). It would have been obvious to a person having ordinary skill in the art to make the covering layer of the Yogo et al./Suter et al. far infrared radiator discussed above from the known material described by Kim since the properties of this material match the requirements of the covering layer required by Yogo et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (571) 272-2468. The examiner can normally be reached on M-F (8:30-6:00) with every second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jack I. Berman  
Primary Examiner  
Art Unit 2881

jb  
7/18/05